

The POSOGRAPH

A Simple Automatic Calculator
for Solving the Problem
of Correct Exposures in
□ Photography. □

Silver Medal Turin International Exhibition, 1923.

Without previous experience the photographer
is able, by its means, to Calculate the Expo-
sure required to get a Perfect Negative, what-
ever may be the conditions either outdoors or
indoors.

Invaluable for Autochromes and
Colour Plates.

Agents :—

James A. Sinclair & Co.

Telephone : Regent 6288.

Telegrams :

Oraculum, "Piccy,"
London.

Ltd.
54, HAYMARKET,
LONDON, S.W.1.

Description of the Instrument.



THE INTERIOR MECHANISM.

THE "POSOGRAPH" consists of a frame of polished nickel, along which slide six pointers which can at once be adjusted against scales representing all the complex factors governing exposure: whether for exterior or interior subjects. All these pointers are connected together with a most ingenious internal mechanism formed of flat metal levers, and which serve to connect the pointers to a cursor bearing four points indicating the exposures required for any class of subject with plates of four different speeds. The instrument measures $5\frac{1}{2}$ in. by $3\frac{1}{2}$ in. by $\frac{1}{2}$ in., and weighs $3\frac{1}{2}$ ounces. It is supplied in a small flat leather pocket case.

ITS ADVANTAGES.—The advantages which this device possesses, as compared with the best exposure tables, are obvious. All that is necessary is to set the pointers to the appropriate positions, and then read the exposure time indicated by the point on the cursor corresponding to the speed of the emulsion used. The simplicity of this operation prevents those mistakes which so frequently arise when making an exposure, after the photographer has had to concentrate his attention to the adjustments of the camera.

The simplicity of the "Posograph" makes it possible, not merely to calculate the time of an exposure for any given subject, but also to make an analysis of the subject. For example, we can ascertain whether the exposure required by a dark foreground will be very different from that which will be suitable for the rest of the subject, or if it is possible to secure a good rendering of a cloud effect in a landscape without making use of a graduated filter. This study of the influence of each of the factors may be made, for each subject, much more clearly and rapidly than by reference to a handbook on the subject of exposures, and very quickly gives a degree of practical skill which normally is only gained by long practice and through the costly lessons of experience.

For Interior Subjects not only is the outer light taken into consideration, but also the colour of the floor, the colour of the walls, the area of sky visible through the windows, and the position of the object in rooms lit by varying amounts of window space. It will be realised that no other instrument gives such an accurate estimate of the exposures necessary in the case of the very varied conditions met with when photographing interiors.



SIDE FOR OUTDOOR
SUBJECTS.



SIDE FOR INTERIOR
SUBJECTS.

The points on the cursor which indicate the exposure correspond respectively to emulsions of the following grades:—

POINT 3.—Ordinary orthochromatic emulsions (H. & D. 70) used with a 3-times yellow light-filter; or slow emulsions (H. & D. 20) used without a filter.

POINT 1.—Ordinary rapid emulsions (H. & D. 70) without a filter; rapid or orthochromatic emulsions (H. & D. 200) used with a 3-times filter.

POINT 1.—Extra-rapid emulsions for instantaneous exposures (H. & D. 200) without a filter.

POINT 1.—Ultra-rapid emulsions for high-speed work (H. & D. 450).

For Autochrome Plates take the figure indicated by Point 1, but read as minutes instead of seconds.

It should be borne in mind that Plate Makers very often exaggerate their H. & D. numbers, but a single practical trial made with the "Peaograph" will show, once for all, the suitable point to be used with any chosen kind of plate.

NOTE.—Regarding Tropical Countries and Southern Hemispheres.—The exposures indicated are those for countries enjoying moderate climate in the Northern Hemisphere. In the tropics, latitude must be taken into consideration by moving to

the right the index finger showing the months. For instance, in equatorial countries the index fingers should indicate July during the dry period and September during the wet period. In the Southern Hemisphere, the table of the months should be transposed, and December and January should read as June and July, May and August as November and February, &c.

Concerning the Accuracy of the "Posograph."

The readings of the "Posograph" have been verified and corrected in the course of an extremely large number of practical tests, made under all possible conditions during the years that have preceded its final production.

Each face of the instrument may be regarded as an exposure record in which are noted the result of thousands of trial exposures, together with all the conditions under which they were made; and among these it is possible to find at once, one which corresponds with the exposure that is to be made. Whatever the conditions, a reading given by the "Posograph" may be regarded as the result of a practical trial and it is this fact, which makes the instrument superior to the various exposure measures of the vision or sensitive paper types, which, often excellent in theory, prove unsatisfactory whenever conditions are out of the ordinary.

**PRICE of the "POSOGRAPH" complete
with solid leather pocket case,**

10/6

James A. Sinclair & Co., Ltd.

Telephone : Regent 6258.

Telegrams :

Oraculum, "Piccy," London.

54, HAYMARKET,

LONDON, S.W.1.

MONTH

Jan. Dec.

Feb. Nov.

Mar. Oct.

Apr. Sep.

May Aug.

June Jul.

NOON

11 AM 1 PM

10 AM 2 PM

9 AM 3 PM

8 AM 4 PM

7 AM 5 PM

6 AM 6 PM

TIME

BY THE SUN

2000 ft x 3 filter

mid em. (8 and 20)

Ultra rapid plates (14 and 450)

Extra rapid emulsion (14 and 450)

30"
15"
8"
4"
2"
1"

EXPOSURE ACCORDING TO EMULSION SPEED
Exposure for AUTOCHROMES 60 times that for ord. rapid emulsions

In wooded ravines
Under dense foliage
In rock defiles
Under light foliage
In shade of a tree
On shady stream
Farmyard
Foliage in the open
Portrait in the open
Large rock masses
Dewy foliage
Open beach scenes
Far distance - At sea
Snow scenes
Distant sea or snow

OUTDOOR SUBJECTS

For groups and portraits at mid-distance set indicator to suit environment.
For very near subjects (busts, large heads) double the exp. shown.

Very narrow old street
Inner courtyard
Detail of archt.
In narrow streets
In ord. streets
Open-air markets
Large monuments
Large squares
Open scenes
River scenes
Panorama in foliage
City panorama

TOWN SCENES

Clouds
1 f.4
2 f.5.6
4 f.8
8 f.11.3
16 f.14
32 f.20
64 f.28
128 f.32
256 f.45
512 f.56

LENS APERTURE

Ag. 1000 uniform system USA
Ag. 1000 international de
Ag. 1000 congrès international de

Dark background, or heavily shadowed
Dark subject, or strong contrasts; or poorly lit, or with strong shadows
Normal in tone and lighting
Subject very light, or in strong light
Weak sunlight
Half light and half shade
Full sunlight
Full sun or light sky
Dazzling

Subject in sunlight Subject without Sun

TOPE & LIGHTING OF THE SUBJECT

STATE OF SKY

Very heavy sky
Dull sky
Overcast grey sky
Cloudy
Bright white sky
Blue with white clouds
Deep blue

POSOGRAPHE. Broyard, France, Belg. etc.
Kaufmann Corb. 11, République, PARIS, France

MONTH

Jan. Dec.

Feb. Nov.

Mar. Oct.

Apr. Sep.

May Aug.

June Jul.

NOON

11 AM

10 AM

9 AM

8 AM

7 AM

6 AM

5 AM

4 AM

3 AM

2 AM

1 AM

BY THE SUN

On photo 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Ord. rapid emulsion (1/100)

Ultra rapid

Extra rapid emul.

30"
15"
8"
4"
2"
1"
1/2"
1/3"
1/4"
1/5"
1/6"
1/8"
1/10"
1/12"
1/15"
1/20"
1/25"
1/30"
1/40"
1/50"
1/60"
1/80"
1/100"

EXPOSURE ACCORDING TO EMULSION SPEED
Exposure for AUTOCHROMES 60 times that for ord. rapid emulsions

In wooded ravines
Under dense foliage
In rock defiles
Under light foliage
In shade of a tree
On shady stream
Farmyard
Foliage in the open
Portrait in the open
Large rock masses
Dewy foliage
Open beach scenes
Far distance—At sea
Snow scenes
Distant sea or snow

COUNTRY SCENES

OUTDOOR SUBJECTS

For groups and portraits at mid-distances set indicator to suit environment.

For very near subjects (busts, large heads) double the exp. shown.

Very narrow old street
Inner courtyard
Detail of arch
In narrow streets
In ord. streets
Open-air markets
Large monuments
Open squares
River scenes
Amusement
City panorama

TOWN SCENES

LENS APERTURE

1 f/4
2 f/5.6
4 f/8
8 f/11.3
16 f/16
32 f/20
64 f/28
128 f/32
256 f/45
512 f/56

Dark background, or heavily shadowed
Dark subject, or strong contrasts, or poorly lit, or with strong shadows

Normal in tone and lighting

Subject very light, or in strong light

Weak sunlight

Half light and half shade

Full sunlight

Full sun on light obj.
Dazzling

TONE & LIGHTING OF THE SUBJECT
Subject in sunlight Subject without sun.

STATE OF SKY
Very heavy sky
Dull sky
Overcast gray sky
Cloudy
Bright white sky
Blue with white clouds
Deep blue

POSOGRAPHE. Breveté. France, Belg. A.P. etc.
Kaufmann, Constructeur 11, République, SOLEMAN, France

COLOUR
OF FLOOR

Dark
or red

Medium

Light

White

Light
or blue

Medium

Dark
or red

COLOUR
OF WALLS

1" Weak light

1/2 Poor light

1/4 Med. light

1/8 Good light

1/16 Good light

1/32 Sunlight in
interior

1/64 Sunlight within
10 ft. from subject

1/128 Sunlight within
10 ft. to subject

Exterior
not sunlit

EXTERNAL LIGHT

Note: The figures 1", 1/2, 1/4, etc. may be obtained from the OUTDOOR section. These are the exposures for the subjects indicated, indicating the situation of the bays of the room, with stop F.10 and ord. rapid emulsions.

EXPOSURE ACCORDING TO EMULSION SPEED

Exposure for AUTOCHROMES 60 times that for ord. rap-em.
10"
5"
2"
1"
30"
15"
8"
4"
2"
1"
1/2
1/3
1/5
1/10
Extra rapid emulsions
Ultra rapid plates

F.8	1
F.11	2
F.16	4
F.22	8
F.32	16
F.45	32
F.64	64
F.90	128
F.128	256
F.180	512
F.256	1024

Congrès international Anglèterre uniform system USN

LENS APERTURE

INTERIORS

With a subject in sunlight use the OUTDOOR table (3 Portrait in the open)
For very near subject (bust, large heads, small objects, etc) double the exposure shown

Ordin' window



Two window



Double window



Full width window



AREA OF SKY VISIBLE FROM POSITION OF SUBJECT

Show or sunlit surface reckoned as sky

Indicate zone in which subject stand or next darker zone for bays hung with network or lace curtains

Zone 5
Zone 4
Zone 3
Zone 2
Zone 1

COLOUR
OF FLOOR

Dark
or red

Medium

Light

White

Light
or blue

Medium

Dark
or red

COLOUR
OF WALLS

1" Weak light

1/2 Poor light

1/3 Ord. light

1/5 Good light

1/10 V. good light

1/15 { No sunlight in the interior

1/25 { Sunlight within 10 ft. from subject

1/40 { Sunlight within 20 ft. from subject

Exterior

not sunlit

Ext. sunlit

EXTERNAL LIGHT

Note. The figures 1, 1/2, 1/3, etc. may be obtained from the OUTDOOR section. These are the exposures for the subject, as directed, indicating the situation of the legs of the room, with stop f/10 and ord. rapid emulsions.

EXPOSURE ACCORDING TO EMULSION SPEED

Exposure for AUTOCHROMES 80 times that for ord. rap. em.

10"
5"
2"
1"
1/2"
1/3"
1/5"
1/10"
1/15"
1/20"
1/30"
1/40"
1/60"
1/80"
1/100"
1/120"
1/150"
1/200"
1/250"
1/300"
1/400"
1/500"
1/600"
1/800"
1/1000"

Ord. rapid emulsions
Extra with 3 1/2 f/11

f/3
f/3.5
f/4
f/4.5
f/5
f/5.6
f/6
f/6.3
f/8
f/11
f/11.5
f/14
f/16
f/20
f/23
f/28
f/32
f/40
f/45
f/56

1
2
4
8
16
32
64
128
256

Congres international de 1900
Anglo-ferre uniform system U.S.A.

LENS APERTURE

INTERIORS

With a subject in sunlight use the OUTDOOR table (3 Portrait in the open)

For very near subject (bust, large heads, small objects, etc) double the exposure shown

Ordin' window



Two window



Double window



Full width window



AREA OF SKY VISIBLE
FROM POSITION OF SUBJECT
Show or sunlit surface reached as sky

Indicate zone in which subject stand or next darker zone for bays hung with network or lace curtains

Zone 5
Zone 4
Zone 3
Zone 2
Zone 1

MOIS

Janv. Dec.

Fév. Nov.

Mar. Oct.

Avr. Sep.

Mai. Août.

Juin. Juil.

11 à 13

10 à 14

9 à 15

8 à 16

7 à 17

6 à 18

HEURE
SOLAIRERapidité moyenne
30° H&DExtra rapide ord.^{re} (150° H&D)Sensibilité extrême
600° H&D

Ultra rapide (350° H&D)

12"
8"
4"
2"
1 sec.
1/2
1/3
1/5
1/10
1/15
1/25
1/50
1/100
1/200
1/300
1/500
1/1000TEMPS de POSE
SUBANT LA SENSIBILITÉ DE L'ÉMULSION

Pour AUTOCROME à poser 60 fois plus que pour extra rapide ord.

1 Fond de ravin boisé

2 Bois à couvert épais

3 Excavation de rochers

4 Bois couvert léger

5 Scènes 1/2 un arbre

6 Rivière ombragée

7 Cour de ferme *

8 Verdure à découvert

9 Portrait à découvert

10 Ensemble de rochers

11 Verdure au nappage d'eau

12 Scènes 1/2 plage de sable

13 Lointains - Marines

14 Scènes sur la neige

15 Lointains de mer ou de neige

A LA CAMPAGNE

VUES EN PLEIN AIR

Pour groupe et portrait à moyenne distance, indiquez le lieu où l'on opère.

Pour sujets très près (buste, grosse tête, etc.) doubler le temps trouvé

1 Vieille rue très étroite *

2 Cour intérieure *

3 Détail d'arch.^{re}

4 Rue de ville étroite *

5 Rue ordinaire *

6 Marché plein vent

7 Ensemble de monument

8 Grande place *

9 Vue de fleuve

10 Panorama au verdure

11 Panorama de gr. ville

12 A LA VILLE Nuages

DIAPHRAGME

Anglisme uniform system U.S.M.

1 1900 f. 2.8

2 f. 4

4 f. 5.6

8 f. 8

16 f. 11.3

32 f. 16

64 f. 23

f. 28

f. 32

f. 40

1^{re} plus forte ou sujet très ombragé

Sujet fort ou grands contrastes ou peu de lumière ou grandes ombres

Teinte normale et lumière norm.

Sujet très clair ou en forte lumière

Soleil pâle

Rég. parties d'ombre et de soleil

Plein soleil

Plein sol. très clair

Eblouissant

Sujet sans soleil

Sujet au soleil

TENTE & ÉCLAIRAGE du SUJET

ÉTAT du CIEL

Couvert très sombre... (Ciel d'orage)

Couvert et sombre... (Ciel de pluie)

Couvert et gris... (Ciel d'acierain)

Nuageux...

Blanc lumineux

Bleu au nuages blancs

Bleu très pur...

POSOGRAPHE. Breveté S.G.D.G.

Kaufmann Const. 11 r. République. FUTEAUX.

COULEUR
du SOL

Foncé
ou rouge

Moyen

Clair

Blancs

Clairs
ou blancs

Moyens

Foncés
ou rouges

COULEUR
des MURS

1 Lumière faible

$\frac{1}{2}$ Lum. moyenne

$\frac{1}{3}$ Lum. ordinaire

$\frac{1}{4}$ Bonne lumière

$\frac{1}{5}$ Très bonne lumi.

$\frac{1}{6}$ Pas de soleil à l'intérieur

$\frac{1}{7}$ Soleil à l'intérieur loin du sujet

$\frac{1}{8}$ Soleil à l'intérieur près du sujet

Extérieur
ensoleillé à l'extérieur

Pas de soleil à l'extérieur

LUMIÈRE EXTÉRIEURE

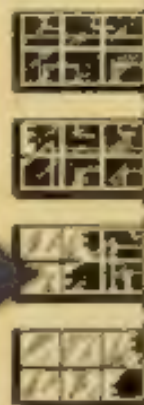
Nota: Les chiffres 1, $\frac{1}{2}$, $\frac{1}{3}$, etc. peuvent être déterminés sur la face PLEIN AIR. Ce sont les temps de pose des sujets moyens d'un 16, indépendamment de la distance de la pièce ou du sujet à émulsion rapide ordinaire.

TEMPS de POSE SUivant LA RAPIDITÉ D'ÉMULSION
Pour AUTOCHROMES, pour 60 pps plus que pour émulsion rapide.

8"
4"
2"
1"
30"
16"
8"
4"
2"
1"
 $\frac{1}{2}$ "
 $\frac{1}{3}$ "
 $\frac{1}{4}$ "
10"

F:3
F:4
F:5
F:7
F:10
F:14
F:20
F:28
F:40

DIAPHRAGME



QUANTITÉ de CIEL VUE
DE LA PLACE DU SUJET

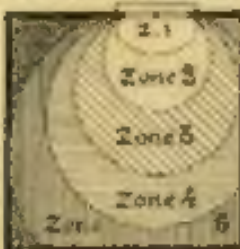
Choisir la surface enchevêtrée simple ou non (selon le sujet)

VUES D'INTÉRIEUR

Quand le sujet est au soleil opérez comme au PLEIN AIR, au verso (à l'intérieur à découvert)

Pour sujets très près: buste, grosse tête, fleurs, petits objets, etc., doubler le temps trouvé

Fenêtre ordinaire



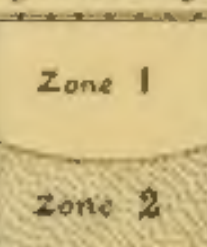
Deux fenêtres



Double fenêtre



Grand vitrage



Indiquer la zone où est le sujet
ou une zone plus nombreuse pour bonne mesure de réduction en taille ou en guispure

Zone 5
Zone 4
Zone 3
Zone 2
Zone 1